RBE, determined at higher dose levels for postradiation alopecia. Mitotic indices were depressed for a 3-fold longer interval than that observed after a "comparable" dose of x-rays. Marked alterations in labeling indices, probably reflecting prolonged cell retention and retarded maturation rates, and discrete reductions in matrix cell populations characterized postneutron radiation changes and were entirely absent in the x-ray study. At the cellular level, these findings support the results of previous investigations [1,9] which have recorded considerably higher RBE's for neutron radiation in very low dose ranges compared to those found at higher dose levels. It should be emphasized that our current study comprises a single low-dose experiment. Although a more complete dose response curve to determine corresponding variations in RBE would be a laborious project, the resulting data would be of considerable interest.

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Gordon Research Conference on Epithelial Differentiation and Keratinization

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